

*Please provide the following information, and submit to the NOAA DM Plan Repository.*

**Reference to Master DM Plan (if applicable)**

*As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.*

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

**1. General Description of Data to be Managed****1.1. Name of the Data, data collection Project, or data-producing Program:**

2013 Massachusetts Department of Environmental Protection Natural Color Imagery

**1.2. Summary description of the data:**

Data set contains digital orthophotography. The digital orthophotos in this series have a theoretical ground resolution of 0.5m. The data set presents information that represents current conditions for the specified regions of interest for coastal areas of Massachusetts. All data were captured during specific imaging windows per contract. These imaging windows vary by location and time of tide but are generally 05/28/2013 through 09/09/2013.

Original contact information:

Contact Name: Charlie Costello

Contact Org: Massachusetts Department of Environmental Protection

Phone: 617-123-4567

Email: none

**1.3. Is this a one-time data collection, or an ongoing series of measurements?**

One-time data collection

**1.4. Actual or planned temporal coverage of the data:**

2013-05-28 to 2013-09-09

**1.5. Actual or planned geographic coverage of the data:**

W: -71.14, E: -69.99, N: 41.77, S: 41.27

**1.6. Type(s) of data:**

*(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)*  
remote-sensing imagery

**1.7. Data collection method(s):**

*(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys,*

*enforcement activities, numerical model, etc.)*

**1.8. If data are from a NOAA Observing System of Record, indicate name of system:**

**1.8.1. If data are from another observing system, please specify:**

**2. Point of Contact for this Data Management Plan (author or maintainer)**

**2.1. Name:**

NOAA Office for Coastal Management (NOAA/OCM)

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:**

NOAA Office for Coastal Management (NOAA/OCM)

**2.4. E-mail address:**

coastal.info@noaa.gov

**2.5. Phone number:**

(843) 740-1202

**3. Responsible Party for Data Management**

*Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.*

**3.1. Name:**

**3.2. Title:**

Data Steward

**4. Resources**

*Programs must identify resources within their own budget for managing the data they produce.*

**4.1. Have resources for management of these data been identified?**

**4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):**

**5. Data Lineage and Quality**

*NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.*

### **5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible**

*(describe or provide URL of description):*

Process Steps:

- 2013-01-01 00:00:00 - Image Acquisition: Overview-The study area consists of approximately 77,600 hectares of Massachusetts coastline. Imagery was collected using GeoPod multispectral aerial imaging sensors. Splayed 5184 pixel X 3456 pixel single frames were acquired using two sensors in a direct digital manner combined into 10000 pixel X 3456 pixel single frames. Each GeoPod sensor has an integrated inertial measurement unit (IMU) to record sensor attitude while collecting frame nadirs with an integrated airborne GPS. Positional data are refined and optimized utilizing multiple sets of Continuously Operating Reference Station (CORS) basestation data. GeoVantage's proprietary Geoimage post-processing application was used to process the individual single frames into orthophoto mosaics rectified to 7.5 min Digital Elevation Model (DEM) grids at 1 arc-sec (~30m) resolution. Data collection times were selected to optimize conditions for viewing nearshore benthic habitat including: tidal stage, season, wind, cloud cover/shadow, sun elevation, and recency of precipitation.
- 2013-01-01 00:00:00 - Image Rectification: Mosaics were generated from orthorectified single frames corrected to USGS 1 arc-sec DEM using multiple CORS stations to control airborne GPS and IMU data. In order to maximize spatial accuracy, all data collected went through the following process: Navigation solution: processed GPS and CORS data to plot coordinates of single frame nadirs for mosaic generation. If navigation solution residuals were in excess of an error tolerance of +/- 1.5m in any of the three axes of rotation, data were reprocessed following a systematic series of quantitative adjustments to processing parameters including the following: incremental manipulation of the gps elevation mask (usually sufficient), blocking and /or substitution of corrupt or confounding CORS data, blocking data from specific individual satellites from the solution, and/or truncation of full mission time. If, after iterating through each of the preceding systematic quantitative adjustments, the navigation solution failed to return residuals within tolerance, The target was submitted for recapture. Mosaic Generation: Proprietary GeoImage software projected single frames to DEM of 1 arc-sec resolution. Single frames were inspected for uniquely identifiable coincident tie points by which to mosaic to adjacent frames.

**5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:**

### **5.2. Quality control procedures employed (describe or provide URL of description):**

## **6. Data Documentation**

*The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.*

**6.1. Does metadata comply with EDMC Data Documentation directive?**

No

**6.1.1. If metadata are non-existent or non-compliant, please explain:**

Missing/invalid information:

- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

**6.2. Name of organization or facility providing metadata hosting:**

NMFS Office of Science and Technology

**6.2.1. If service is needed for metadata hosting, please indicate:**

**6.3. URL of metadata folder or data catalog, if known:**

<https://www.fisheries.noaa.gov/inport/item/49587>

**6.4. Process for producing and maintaining metadata**

*(describe or provide URL of description):*

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: [https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC\\_PD-Data\\_Documentation\\_v1.pdf](https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf)

**7. Data Access**

*NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted*

*to justify any approach other than full, unrestricted public access.*

**7.1. Do these data comply with the Data Access directive?**

**7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?**

**7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:**

**7.2. Name of organization of facility providing data access:**

NOAA Office for Coastal Management (NOAA/OCM)

**7.2.1. If data hosting service is needed, please indicate:**

**7.2.2. URL of data access service, if known:**

<https://coast.noaa.gov/dataviewer/#/imagery/search/where:ID=2578>

[https://coast.noaa.gov/htdata/raster2/imagery/CapeCodMA\\_2013\\_2578](https://coast.noaa.gov/htdata/raster2/imagery/CapeCodMA_2013_2578)

**7.3. Data access methods or services offered:**

<https://coast.noaa.gov/dataviewer>. This data set is dynamically generated based on user-specified parameters.;

**7.4. Approximate delay between data collection and dissemination:**

**7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:**

**8. Data Preservation and Protection**

*The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.*

**8.1. Actual or planned long-term data archive location:**

*(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)*

**8.1.1. If World Data Center or Other, specify:**

**8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:**

**8.2. Data storage facility prior to being sent to an archive facility (if any):**

Office for Coastal Management - Charleston, SC

**8.3. Approximate delay between data collection and submission to an archive facility:**

**8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?**

*Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection*

**9. Additional Line Office or Staff Office Questions**

*Line and Staff Offices may extend this template by inserting additional questions in this section.*